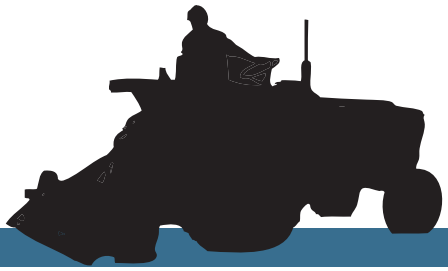
making a home for wildlife...

Strip Disking



The sod and vegetation in a mature grassland can be so dense that the first pass with a disk barely breaks the surface. It's no surprise that grassland birds from meadow larks to quail have a tough time traversing a mature grassland.

definitions

Strip Disking — A way to improve Iowa wildlife habitat by breaking up the soil and thinning dense grasses and foliage. Purposely creating ground disturbance to release grass-bound fields, reduce litter accumulation, create bare ground, stimulate germination of seed-producing plants, and increase insect populations for grassland birds to feed upon.

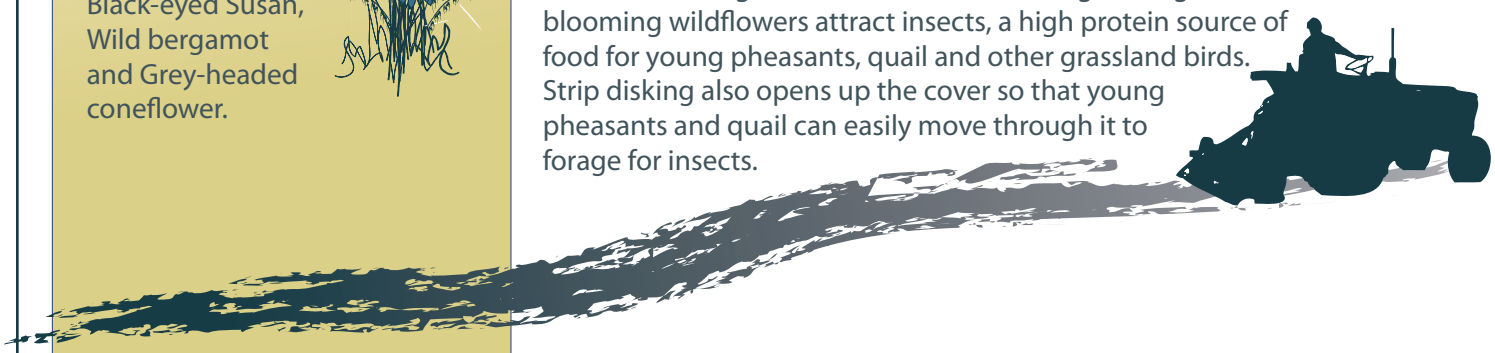
Forb or Wildflower — A non-woody, non-grasslike, broad-leaved herbaceous plant. Native forbs include Black-eyed Susan, Wild bergamot and Grey-headed coneflower.

purpose

To emulate a newly planted stand of grass.

benefits

Strip disking is a simple practice used to create ideal wildlife habitat. It is a great way to turn a stand of marginal, mature grassland habitat into a productive mixed-stand of seed-producing forbs and grasses. This practice benefits wildlife by reducing litter in the strip, providing adequate conditions for forbs and seed-bearing plants to grow, and in turn, increasing insect populations that grassland birds eat. Strip disking prevents shrubs and trees from taking over the field and encourages the growth of forbs. These blooming wildflowers attract insects, a high protein source of food for young pheasants, quail and other grassland birds. Strip disking also opens up the cover so that young pheasants and quail can easily move through it to forage for insects.



bringing back the birds

For the past 40 years, changing agricultural practices have contributed to a steady decline of songbird, Ringneck pheasant and Northern bobwhite quail populations in Iowa.

Growing a variety of crops on small fields separated by brushy fencerows is no longer common. Large grain fields with fewer fencerows are now the norm.

The development of many diverse agricultural herbicides combined with technologically advanced machinery has led to the elimination of weedy waste areas and weedy crop fields. Unfortunately, the "unwanted" vegetation is not unwanted by many grassland species that depend upon its foliage for survival.

Those weedy areas that existed everywhere in the 1960s provided an excellent area for songbird, pheasant and quail chicks to be raised. Patches of annual weeds have very little vegetative growth at ground level, so pheasant and quail chicks can move through them easily to forage for insects.

Eighty-five percent of a pheasant or quail chick's diet is comprised of insects, and insects are attracted to forbs much more than they are to grass. Insects provide the high protein diet necessary for feather development in young birds.

To bring back the birds, you will need to turn back the clock, recreating the more open, weedy conditions that favor grassland species.

Above: On the second pass, you may begin to see some reduction in the predominant vegetation.

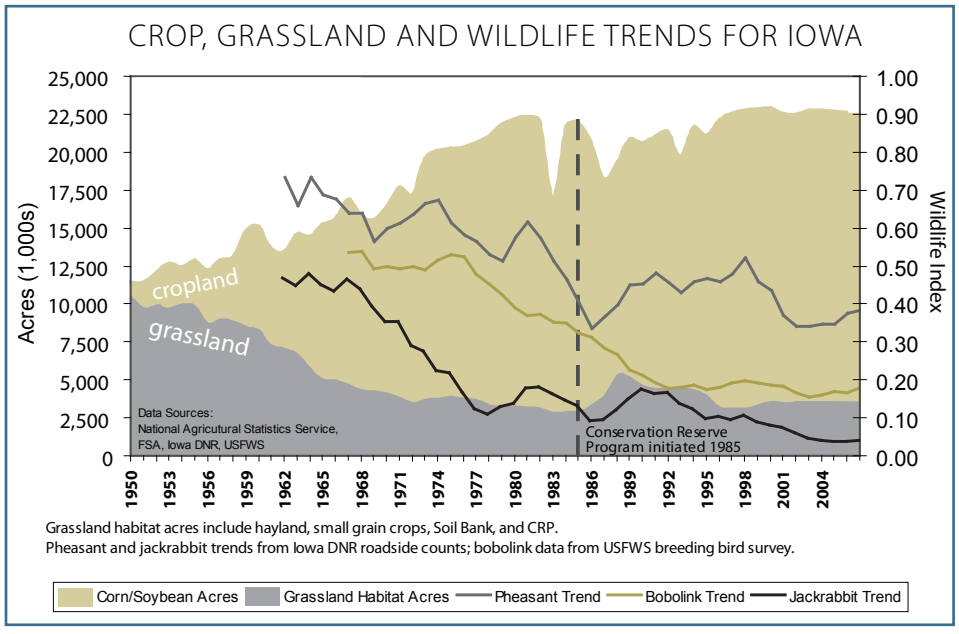
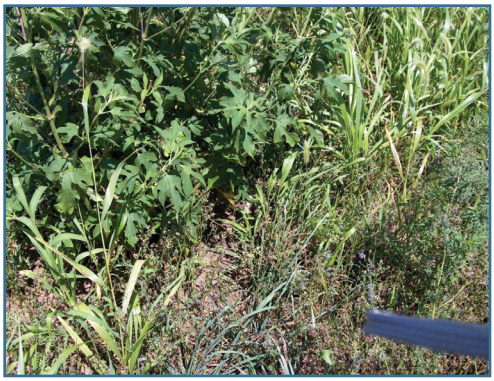


Table 1. Wildlife trends follow grassland trends from 1950 to 2007.



Above: It will take at least three to four passes to set the grass back enough to encourage forbs to grow.

> *"Once you suppress the brome, it's amazing how much plant diversity comes back."*
>
> *– Troy Lust, landowner*
> *Lucas County*

how to

Disk in the fall to encourage the growth of common ragweed — which is highly beneficial to quail. Disk between October 1 and freeze-up to avoid the thicker foxtail that is more likely to result with spring disking.

If you do not have disking equipment, check with a local farm supply store for rentals or contract the equipment from a local farmer.

There are different types of disks for different purposes. If the disk is too small, it may not be heavy enough to effectively cut through heavy grass cover. However, if the disk is too large, it may be difficult to transport, especially along narrow farmlanes and woodland trails. A suitable setup is a pick-up disk, 6-8 feet wide and pulled by a 20 - 40 horsepower tractor.

You will probably need to complete at least three to four passes in order to set back the grass enough.

For best results, the ground should be disked deep enough to create 50 percent open ground when the disking is complete. If the sod is too heavy to allow adequate soil disturbance with a disk, then mowing or burning could be used to remove the thick mat of growth prior to disking.

The ideal width of the disked strip is 50 to 75 feet wide. By making the strip at least 50 feet wide you can limit the amount of predation. If possible, the disked strip should be adjacent to good escape cover for the animals you are attracting. Smaller disked strips provide perfect hunting lanes for predators and will not make good wildlife habitat.

If the land to be disked is somewhat steep, disk it with the contour of the hills. This practice, in addition to leaving two-thirds of the field un-disked, should limit any significant soil erosion.

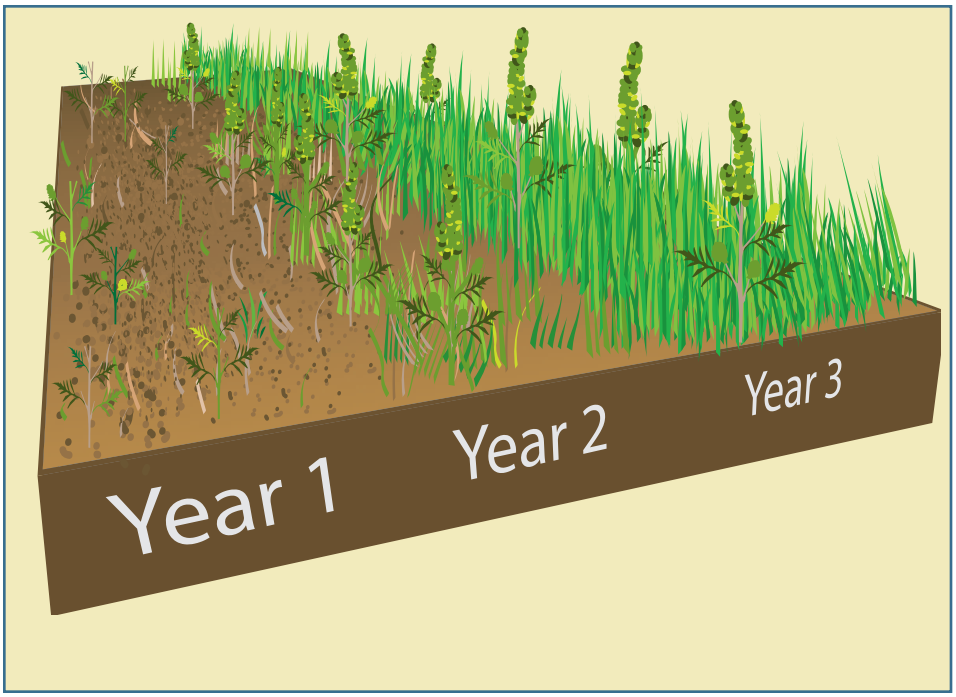


Figure 1. Growth of vegetation after disking.

timing – what to expect

To complete the disking properly, disk one third of your field per year, leaving the other two thirds to be disked in later years. *(See Figure 1)*

Using a three-year cycle produces different stages of forb and grass development, allowing wildlife to benefit from each growth stage.

Year 1: Bare ground. Heavy seed-producing plants such as foxtail and ragweed will quickly establish the disturbed soil area.

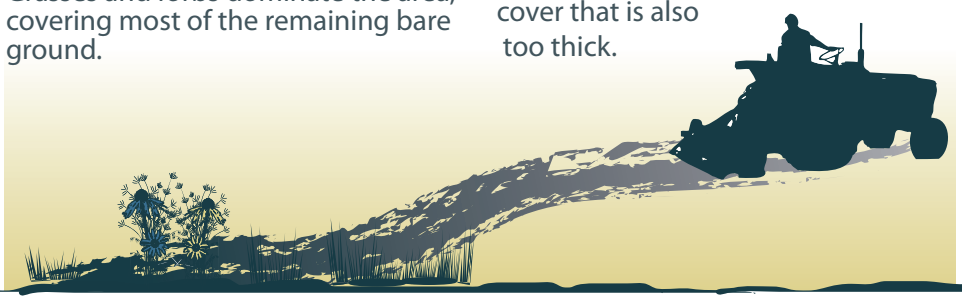
Year 2: Annual grass/forb development. Perennial forbs, legumes and grasses begin to become established.

Year 3: Taller, more prominent perennial forbs and grasses. Seed-producing annuals decline rapidly. Grasses and forbs dominate the area, covering most of the remaining bare ground.

interseed for best results

Interseed legumes or native forbs into the land after disking to enhance the area even more for birds. This will help to get something growing in the area that will provide immediate habitat and reduce the noxious weeds. Interseeding is not always necessary to produce good forb growth, especially if the soil is fertile. However, by interseeding you are ensuring your land will produce excellent wildlife habitat.

Some species that would be good to interseed include: Partridge pea, Red clover and Alfalfa. We do not recommend using Birdsfoot trefoil or the shorter growing clovers. Plant the legumes at less than one-half the normal rate or you will be replacing the thick grass cover with legume cover that is also too thick.



Above: Ragweed
Below: Goldenrod

There are hundreds of plants to choose from when interseeding. Others will emerge naturally once the thick sod is opened up.

information and plant sources

The DNR has wildlife biologists who are familiar with plants that can help you meet your objectives.

Contact your ***DNR biologist*** at www.iowadnr.gov/wildlife/privatelands/advice.html

Iowa Native Plants Web site
www.prrcd.org/inl/index.htm

DNR Private Lands Program
www.iowadnr.gov/wildlife/privatelands/

Iowa Prairie Network
www.iowaprairienetwork.org/

IPN Local Seed Sources
www.iowaprairienetwork.org/mgmt/seeddealers.htm

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